

Jamie M. Coleman Regulatory Affairs Director Vogtle 3 & 4 7825 River Road Waynesboro, GA 30830 706-848-6926 tel

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Docket No.: 52-026

ND-23-0382 10 CFR 52.99(c)(1)

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.3.07.02a [Index Number 392]

#### Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.3.07.02a [Index Number 392]. This ITAAC verifies that the Spent Fuel Pool Cooling System (SFS) components listed in the Combined License (COL) Appendix C, Tables 2.3.7-1 and 2.3.7-2 that are identified as American Society of Mechanical Engineers (ASME) Code Section III were designed and constructed in accordance with applicable requirements. The closure process for this ITAAC is based on the guidance described in Nuclear Energy Institute (NEI) 08-01, *Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52*, which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,

Jamie M. Coleman

Regulatory Affairs Director Vogtle 3 & 4

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Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4

Completion of ITAAC 2.3.07.02a [Index Number 392]

JMC/TL/sfr

U.S. Nuclear Regulatory Commission ND-23-0382 Page 2 of 2

cc: Regional Administrator, Region II

Director, Office of Nuclear Reactor Regulation (NRR)

Director, Vogtle Project Office NRR Senior Resident Inspector – Vogtle 3 & 4 U.S. Nuclear Regulatory Commission ND-23-0382 Enclosure Page 1 of 7

# Southern Nuclear Operating Company ND-23-0382 Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 4 Completion of ITAAC 2.3.07.02a [Index Number 392] U.S. Nuclear Regulatory Commission ND-23-0382 Enclosure Page 2 of 7

#### **ITAAC Statement**

#### **Design Commitment:**

- 2.a) The components identified in Table 2.3.7-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.
- 2.b) The piping lines identified in Table 2.3.7-2 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.
- 3. Pressure boundary welds in piping lines identified in Table 2.3.7-2 as ASME Code Section III meet ASME Code Section III requirements.
- 4. The piping lines identified in Table 2.3.7-2 as ASME Code Section III retain their pressure boundary integrity at their design pressure.

## Inspections, Tests, Analyses:

Inspection will be conducted of the ASME as-built components and piping lines as documented in the ASME design reports.

Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.

A hydrostatic test will be performed on the piping lines required by the ASME Code Section III to be hydrostatically tested.

#### Acceptance Criteria:

The ASME Code Section III design reports exist for the as-built components and piping lines identified in Tables 2.3.7-1 and 2.3.7-2 as ASME Code Section III.

A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

A report exists and concludes that the results of the hydrostatic test of the piping lines identified in Table 2.3.7-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.

#### **ITAAC Determination Basis**

This ITAAC requires inspections, tests, and analyses be performed and documented to ensure the Spent Fuel Pool Cooling System (SFS) components and piping lines listed in the Combined License (COL) Appendix C, Table 2.3.7-1 (Attachment A) and Table 2.3.7-2 (Attachment B) that are identified as American Society of Mechanical Engineers (ASME) Code Section III, are designed and constructed in accordance with applicable requirements.

U.S. Nuclear Regulatory Commission ND-23-0382 Enclosure Page 3 of 7

<u>2.a and 2.b) The ASME Code Section III design reports exist for the as-built components and piping lines identified in Tables 2.3.7-1 and 2.3.7-2 as ASME Code Section III.</u>

Each component listed in Table 2.3.7-1 as ASME Code Section III was fabricated in accordance with the VEGP Updated Final Safety Analysis Report (UFSAR) and the ASME Code Section III requirements. The ASME Code Section III certified Design Reports for these components exist and document that the as-built components conform to the approved design details. The ASME Section III Design Report for each component was documented in the component's completed ASME Section III Code Data Report. The individual component ASME Section III Code Data Reports are documented on the ASME Section III N-5 Code Data Report(s) for the applicable piping system (Reference 1).

The as-built piping lines listed in Table 2.3.7-2 including the components listed in Table 2.3.7-1 as ASME Code Section III, were subjected to a reconciliation process (Reference 2), which verified that the as-built piping lines were analyzed for applicable loads (e.g. stress reports) and for compliance with all design specification and Code provisions. Design reconciliation of the as-built systems, including installed components, validates that construction completion, including field changes and any nonconforming condition dispositions, was consistent with and bounded by the approved design. All applicable fabrication, installation and testing records, as well as, those for the related Quality Assurance (QA) verification/inspection activities, which confirm adequate construction in compliance with the ASME Code Section III and design provisions, are referenced in the N-5 Data Report and/or its sub-tier references.

The applicable ASME Section III N-5 Code Data Report(s), which include the location of the certified Design Reports for all the components listed in Table 2.3.7-1 (Attachment A) and piping lines listed in Table 2.3.7-2 (Attachment B) as ASME Code Section III, exist and conclude that these installed components were designed and constructed (including their installation within the applicable as-built piping system) in accordance with the ASME Code (1998 Edition, 2000 Addenda and 1989 Edition, 1989 Addenda), Section III requirements as applicable, as described in UFSAR Subsection 5.2.1 (Reference 3). The N-5 Code Data Reports for the piping system(s) containing the components listed in the Table 2.3.7-1 and Table 2.3.7-2 are identified in Attachments A and B, respectively.

# 3. A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

An inspection was performed in accordance with Reference 2 to demonstrate that the as-built pressure boundary welds in piping lines identified in Table 2.3.7-2 (Attachment B) as ASME Code Section III met ASME Code Section III requirements (i.e., no unacceptable indications). This portion of the ITAAC was complete when the piping lines identified in Table 2.3.7-2, which is encompassed within the respective piping system Code Symbol N-Stamp and the corresponding piping system Code N-5 Data Report Form(s) (Reference 1), was completed. The non-destructive examinations (including visual inspection, liquid penetrant, magnetic particle, radiographic, and ultrasonic testing, as required by ASME Code Section III) of the piping lines pressure boundary welds are documented in the Non-destructive Examination Report(s) within the piping system's supporting data package, which support completion of the respective Code Stamping and Code N-5 Data Report(s).

The completion of stamping the respective piping system along with the corresponding ASME Code N-5 Data Report Form(s) (certified by the Authorized Nuclear Inspector) ensured that the piping lines were constructed in accordance with the design specification(s) and the ASME

U.S. Nuclear Regulatory Commission ND-23-0382 Enclosure Page 4 of 7

Code Section III and that the satisfactory completion of the non-destructive examinations of piping pressure boundary welds for the pipe lines identified in Table 2.3.7-2 meet ASME Code Section III requirements and were documented in the Non-destructive Examination Report(s) within the supporting data packages.

4. A report exists and concludes that the results of the hydrostatic test of the piping lines identified in Table 2.3.7-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.

This ITAAC verifies that the piping lines identified in Table 2.3.7-2 (Attachment B) fully met all applicable ASME Code, Section III requirements and retains its pressure boundary integrity at its design pressure.

A hydrostatic test was performed (as applicable) that comply with the ASME Code (1998 Edition, 2000 Addenda), Section III requirements to demonstrate that the ASME Code Section III piping lines identified in Table 2.3.7-2 retains its pressure boundary integrity at its design pressure.

A hydrostatic test verified that there are no leaks at welds or piping lines, and that the pressure boundary integrity was retained at its design pressure. The hydrostatic testing results of the pipe lines are documented in the Hydrostatic Testing Report(s). The Hydrostatic Testing Report(s) supports completion of the ASME Section III N-5 Code Data Report(s) for the applicable piping system (i.e., SFS) (Reference 1).

The applicable ASME Section III N-5 Code Data Report(s) (Reference 1) identified in Attachment B documents that the results of the hydrostatic testing of the piping lines identified in Table 2.3.7-2 conform with the requirements of the Code (1998 Edition, 2000 Addenda), Section III.

Reference 1 provides the evidence that the following ITAAC Acceptance Criteria requirements were met:

- The ASME Code Section III design reports exist for the as-built components and piping lines identified in Tables 2.3.7-1 and 2.3.7-2 as ASME Code Section III;
- A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds; and
- A report exists and concludes that the results of the hydrostatic test of piping lines identified in Table 2.3.7-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.

This ITAAC also verifies that Preservice Inspection (PSI) for the applicable portions of Class 2 and 3 Spent Fuel Pool Cooling System (SFS) components and piping identified in Tables 2.3.7.1 and 2.3.7-2 were completed (Reference 7), in accordance with the Unit 4 PSI program plan, (Reference 5), and the results of the PSI conforms with the requirements of the ASME Boiler and Pressure Vessel (B&PV) Code.

References 1 and 4 are available for NRC inspection as part of the Unit 4 ITAAC 2.3.07.02a Completion Package (Reference 6).

U.S. Nuclear Regulatory Commission ND-23-0382 Enclosure Page 5 of 7

#### **ITAAC Finding Review**

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review, which included now consolidated ITAAC Indexes 393, 394 and 395 found no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.3.07.02a (Reference 6) and is available for NRC review.

#### **ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.3.07.02a was performed for VEGP Unit 4 and that the prescribed acceptance criteria were met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

# References (available for NRC inspection)

- 1. SV4-SFS-MUR-001, Rev. 0, "AP 1000 Vogtle Unit 4 ASME Section III System Code Data Report for the Spent Fuel Pool Cooling System (SFS)"
- 2. APP-GW-GAP-139, Rev. 9, "Westinghouse/Stone & Webster ASME Code Data Report and As-Built Documentation Interface Procedure"
- 3. VEGP 3&4 Updated Final Safety Analysis Report, Rev. 11.2, Subsection 5.2.1, "Compliance with Codes and Code Cases"
- 4. SV4-SFS-S3R-001, Rev. 0, "Vogtle Unit 4 Spent Fuel Pool Cooling System (SFS) ASME Section III As-Built Piping System Design Report"
- 5. SV4-GW-GEI-100, Rev. 1, "AP1000 Preservice Inspection Program Plan for Vogtle Unit 4"
- 6. 2.3.07.02a-U4-CP-Rev0, ITAAC Completion Package
- 7. APE-10-00026, SNC Interoffice Memo, dated 3/31/2023, "Completion of Preservice Inspection for the Vogtle Unit 4 PCS and SFS Class 1, Class 2, and 3 Portions of Systems"

## Attachment A

SYSTEM: Spent Fuel Pool Cooling System (SFS)

Component Name *	Tag No. *	ASME Code Section III*	System Design Report	N-5 Report
Refueling Cavity Drain to SGS Compartment Isolation Valve	SFS-PL-V031	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity to SFS Pump Suction Isolation Valve	SFS-PL-V032	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Drain to Containment Sump Isolation Valve	SFS-PL-V033	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
IRWST to SFS Pump Suction Line Isolation Valve	SFS-PL-V039	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Fuel Transfer Canal to SFS Pump Suction Iso. Valve	SFS-PL-V040	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Loading Pit to SFS Pump Suction Isolation Valve	SFS-PL-V041	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Loading Pit to SFS Pump Suction Isolation Valve	SFS-PL-V042	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
SFS Pump Discharge Line to Cask Loading Pit Isolation Valve	SFS-PL-V045	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Loading Pit to WLS Isolation Valve	SFS-PL-V049	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Spent Fuel Pool to Cask Washdown Pit Isolation Valve	SFS-PL-V066	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Washdown Pit Drain Isolation Valve	SFS-PL-V068	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Drain Line Check Valve	SFS-PL-V071	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Drain Line Check Valve	SFS-PL-V072	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
SFS Containment Floodup Isolation Valve	SFS-PL-V075	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001

<sup>\*</sup>Excerpts from COL Appendix C Table 2.3.7-1

**Attachment B** 

SYSTEM: Spent Fuel Pool Cooling System (SFS)

Piping Line Name*	Line Number*	ASME Code Section III*	System Design Report	N-5 Report
Spent Fuel Pool to RNS Pump Suction	L014	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Loading Pit to RNS Pump Suction	L115	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Drain	L033+	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
PXS IRWST to SFS Pump Suction	L035	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Skimmer to SFS Pump Suction	L036	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Drain	L037	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Drain	L044+	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Fuel Transfer Canal Drain	L047	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Washdown Pit Drain	L068	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Loading Pit Drain	L043	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Pit Transfer Branch Line	L045	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Spent Fuel Pool Containment Isolation Thermal Relief Line	L052+	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Refueling Cavity Drain	L030	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Upender Pit Drain/Fill Line	L121	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Spent Fuel Pool Drain	L066+	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
Cask Loading Pit to WLS	L067+	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
RNS Return to Spent Fuel Pool	L100	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001
SFS Containment Floodup Line	L120	Yes	SV4-SFS-S3R-001	SV4-SFS-MUR-001

<sup>\*</sup>Excerpts from COL Appendix C, Table 2.3.7-2

<sup>+</sup> For girth fillet welds between piping and socket welded fittings, valves, and flanges, refer to VEGP UFSAR Section 5.2.1.1 (Reference 3).